

one transmission direction is attenuated by a factor of at least 10 on passing through a receive filter of a channel in the other transmission direction.

B3 5. (Amended) The method according to claim 16, wherein wavelengths for data signals propagating on inbound lines are different from data signals propagating on outbound lines.

B4 7. (Twice Amended) The method claimed in claim 5, wherein the wavelengths in the two transmission directions are chosen so that the backscattered signal originating from the signal in one transmission direction is attenuated by a factor of at least 10 on passing through a receive filter of a channel in the other transmission direction.

B5 Sub 8. 9. (Amended) An amplified and non-bi-directional fiber optic link including optical loopback of the amplifiers to enable COTDR, comprising means for widening the spectrum of a signal in at least one transmission direction by modulating a wavelength of the signal.

Sub 8. 11. (Amended) The link according to claim 10, wherein the wavelength modulation means effect wavelength modulation with a modulation rate in the range from 0.5 kHz to 10 GHz.

12. (Twice Amended) The link according to claim 10, wherein the wavelength modulation means vary the wavelength over a range greater than a few times the bit rate of the link.

B7 15. (Amended) The link according to claim 14, wherein the phase modulation means effect modulation at a modulation rate greater than a few times the bit rate of the link.

16. (Amended) A method of reducing interaction between the signal in one transmission direction and backscattered noise originating from the other transmission direction in an amplified and non-bi-directional fiber optic link including optical loopback of the amplifiers to enable COTDR, wherein a spectrum of the signal in at least one transmission direction is widened by modulating a wavelength of the signal.

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18. (Amended) The method claimed in claim 17, wherein the modulation rate is in the range from 0.5 kHz to 10 GHz.

19. (Twice Amended) The method according to claim 16, wherein the wavelength modulation varies the wavelength over a range greater than a few times the bit rate of the link.

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22. (Amended) The method according to claim 21, wherein the modulation rate is greater than a few times the bit rate of the link.

Please add the following new claims:

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23. (New) The link according to claim 11, wherein the wavelength modulation means effect wavelength modulation with a modulation rate in the range from 1 kHz to 5 GHz.

24. (New) The link according to claim 12, wherein the wavelength modulation means vary the wavelength over a range greater than twice the bit rate of the link.

25. (New) The link according to claim 15, wherein the phase modulation means effect modulation at a modulation rate greater than twice the bit rate of the link.

26. (New) The method claimed in claim 18, wherein the modulation rate is in the range from 1 kHz to 5 GHz.

27. (New) The method according to claim 19, wherein the wavelength modulation varies the wavelength over a range greater than twice the bit rate of the link.

28. (New) The method according to claim 22, wherein the modulation rate is greater than twice the bit rate of the link.

29. (New) A system comprising an amplified and non-bi-directional fiber optic link having optical loopback of amplifiers to enable coherent optical time domain reflectometry (COTDR), wherein a signal transmitted in one direction has a different wavelength than a signal transmitted in another direction.

30. (New) A method comprising the steps of:

- providing an amplified and non-bi-directional fiber optic link having optical loopback of amplifiers to enable coherent optical time domain reflectometry (COTDR); and
- reducing interaction between a first signal in one transmission direction and backscattered noise originating from another direction,

wherein the signal transmitted in said one direction has a different wavelength than a second signal transmitted in said another direction.

31. (New) A system comprising,

an amplified and non-bi-directional fiber optic link having optical loopback of amplifiers to enable coherent optical time domain reflectometry (COTDR), said fiber optical link having means for widening a spectrum of a signal in at least one transmission direction.

32. (New) A method comprising the steps of:

providing an amplified and non-bi-directional fiber optic link having optical loopback of amplifiers to enable coherent optical time domain reflectometry (COTDR); and

reducing interaction between a first signal in one transmission direction and backscattered noise originating from another direction,

wherein a spectrum of a signal in at least one transmission direction is widened.

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